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Mother's Knowledge and Attitude Regarding Speech Delay Prevention in Children: A Cross-sectional Study in Pantai Labu Health Center of Deli Serdang Regency

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ABSTRACT

Background: The term speech delay is a disorder of speech delay which is classified as an expressive language disorder or with difficulty expressing, which occurs in early childhood. The lack of **communication** time between young children and their parents or peers can affect their language skills. **Objective**: To find out whether there is a relationship between mother's knowledge and attitudes regarding preventing speech delay in children aged 1-3 years. **Method**: This research uses descriptive analytical research with a cross-sectional research design. The population used was all mothers who had children aged 1-3 years with a total sample of 111 people, and the sampling technique was the Non-Probability Sampling technique. **Results**: The results of the Chi-square test statistic showed a p-value = 0.00. With a 95% confidence level $\propto$ = 0.05. This means that there is a relationship between maternal knowledge and the prevention of speech delay in children aged 1-3 years in the Pantai Labu Health Center, Deli Serdang Regency. The statistical test results of the Chi-square test showed a p-value = 0.00. With a 95% confidence level $\propto$ = 0.05. This means that there is a relationship between the mother's attitude and the prevention of speech delay in children aged 1-3 years in the Pantai Labu Health Center. **Conclusion**: It is hoped to provide support and information to mothers to find out their child's language development and detect early if there are problems with their language development (speech delay).

Keywords: Mother, Knowledge, Attitude, Speech delay, Children

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1. INTRODUCTION

Language is a form of language children use to interact and adapt to the surrounding environment to exchange ideas, thoughts and emotions. Language can be expressed by speaking methods referring to verbal symbols. Language can also be used for nonverbal communication, such as gesticulation, gestures, or pantomime (Hurlock, 2016). Gesticulation is an expression that uses hand and arm movements to emphasize meaning when

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speaking. Pantomime is a way of speaking by changing verbal communication into movement expressions that use each body part with different meanings. Speech and language skills include children's sensorimotor, cognitive, psychological, emotional and environmental development (Qiftiyah, 2020).

Language ability can be assessed by listening, understanding and speaking. Speaking ability is more accessible to assess than other abilities, so discussions about language ability are often related to speaking ability (Miranda, 2023). Whether or not a child can speak is influenced by intrinsic causes and extrinsic factors (Hurlock, 2016). The intrinsic cause is the influence of the child himself, where the conditions he is born with include the physiology of the organs that support language and speaking abilities (Poćwierz-Marciniak, & Harciarek, 2021). Meanwhile, extrinsic causes are influences from the environment around the child, especially the words that are heard or addressed to the child (Leshin, 2021).

Delayed speech (speech delay) is a disorder of delayed speech in children which has recently occurred a lot. It is estimated that 7% of elementary school-age children have this problem. The percentage changes from one country to another because the criteria differ. Moreover, this figure can range from 5% to 10% (Sudgen, 2019).

Child development doctors use the term speech delay. Meanwhile, two neurologists call it developmental dysphasia. Children with speech delay are classified as having expressive language disorders or have difficulty expressing themselves, whereas young children can understand what other people say but find it difficult to use words together to reply (Morgan, 2019). At the special Growth and Development Clinic, Harapan Kita Hospital, Jakarta (2008-2009), the majority of patients who came with the main complaint of speech delay (69.6%) were diagnosed between the ages of 13-36 months, more (71.2%) in boys.6 The likelihood of a child experiencing speech and language delays increases if there is a family history of language delays, reading, writing and learning difficulties. Social, economic, and parental education also cause speech and language delays in children (Hartanto, 2018).

One of the causes of expressive language disorders in children is brain trauma or developmental problems. The lack of communication between young children and their parents or peers can affect their language skills. The child's infrequent communication with the surrounding environment can cause the

child to experience expressive language disorders (Güven & Leonard, 2020).

As for the characteristics of language development, children aged 4-5 years can understand 1,000-2,500 words and construct sentences well and correctly. Children can express themselves, write and read (Susanto, 2017). In this case, children can listen to, understand, and respond to other people's conversations. According to Todd Houston, a speech pathologist at the University of Akron, "comprehensive, family-centred early intervention services that support listening, spoken-language, and age-appropriate communication" (Houston, 2016). Therefore, researchers want to dig up information and describe the elements that influence speech delays in early childhood and what stimulation parents carry out to prevent speech delays in children. It is hoped that this research will provide information and ideas for all parties in overcoming the problem of speech delay so that children are more intelligent.

Based on the background above, the author is interested in research to find out the extent of mothers' knowledge and attitudes towards preventing Speech Delay in children aged 1-3 years, so the author raises this issue in this proposal with the title "The Relationship between Mothers' Knowledge and Attitudes Regarding Prevention Speech Delay in Children Aged 1-3 Years in the Working Area of the Pantai Labu Health Center, Deli Serdang".

2. METHODS

In this research, researchers used descriptive-analytical research, namely research, to study the dynamics of the relationship between variables with a cross-sectional research design, which is a research design by carrying out measurements or observations at the same time. A total of 111 mothers were obtained through Non-Probability Sampling techniques with Incidental Sampling. The sample for this research was all mothers with children aged 1-3 years in the Pantai Labu Health Center, Deli Serdang Regency.

3. RESULTS

The results of the research were to determine the relationship between knowledge and attitudes of mothers regarding preventing speech delay in children aged 1-3 years in the Working Area of the Pantai Labu Health Center Deli Serdang Regency with a total of 111 mothers who had children aged 1-3 years. A frequency distribution was obtained based on the characteristics of respondents consisting of the mother's age, education, occupation, knowledge and mother's role in the following table:

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Table 1. Frequency Distribution of Respondents Based on Mother's Knowledge About Prevention of Speech Delay in Children Aged 1-3 Years in Pantai Labu Health Center of Deli Serdang Regency

Knowledge	n	Percentage (%)
Less Knowledge	23	20,72
Sufficient Knowledge	28	25,23
Good Knowledge	60	54,05
Total	111	100

From Table 1, it can be concluded that most mothers with children aged 1-3 years have good knowledge, with a total of 60 people (54,05%). Moreover, the minority of mothers who have children aged 1-3 years who have less knowledge is 23 people (20,72%).

Table 2. Frequency Distribution of Respondents Based on Mother's Attitude Regarding Prevention of Speech Delay in Children Aged 1-3 Years in Pantai Labu Health Center of Deli Serdang Regency

Atittude	n	Percentage (%)
Negative	35	31,53
Positive	76	68,47
Total	111	100

From Table 2, it can be concluded that most mothers with children aged 1-3 years have a positive attitude, with a total of 76 people (68.47%). And the minority of mothers who have children aged 1-3 years who have a negative attitude are 35 people (31.53%).

Table 3. Frequency Distribution of Speech Delay in Children Aged 1-3 Years in Pantai Labu Health Center of Deli Serdang Regency

Speech delay	n	Percentage (%)
Less Speech delay	27	24,32
Good Speech delay	84	75,68
Total	111	100

From Table 3, it can be concluded that the majority of children aged 1-3 years with less speech delay are 84 children (75,68%). And the minority of children aged 1-3 years with good speech delay were 27 children (24,32%).

Results of bivariate research on the relationship between knowledge and mothers' attitudes regarding preventing speech delay in children aged 1-3 years in the Pantai Labu Health Center Working Area, Deli Serdang.

Tabel 4. Results of bivariate research on the relationship between knowledge and attitudes of mothers regarding the prevention of speech delay in children aged 1-3 years in Pantai Labu Health Center of Deli Serdang Regency

Knowledge	Speech Delay				Total	p-value
	Less		Good			
	n	%	n	%		
Not Enough	23	85,18	0	0	23	0,00
Enough	2	7,41	26	30,95	34	
Good	2	7,41	58	69,05	60	
Total	27	100	84	100	111	

From Table 4 above, it can be concluded that 60 mothers have good knowledge, 58 have children with good language skills (69.05%), and 2 have children with poor language skills (7.41%). 34 mothers had sufficient knowledge, with 26 children with good language skills (30.95%) and two children with poor language skills (7.41%). There were 23 mothers with less knowledge and 23 with fewer language skills (85.18%). And there are no children with good language skills.

The statistical test results of the Chi-square test showed a p-value = 0.00. With a 95% confidence level $\propto$ = 0.05. From the critical value that has been determined previously, a conclusion can be drawn, where p-value < α, then Ho is rejected, and Ha is accepted, meaning that there is a relationship between maternal knowledge and the prevention of speech delay in children aged 1-3 years in the Pantai Labu Deli Serdang Health Center Working Area.

Table 5. The Relationship between Mothers' Attitudes Regarding Prevention of Speech Delay in Children Aged 1-3 Years in Pantai Labu Health Center of Deli Serdang Regency

Attitude	Speech Delay				Total	p-value
	Less		Good			
	n	%	n	%		
Negative	16	59,26	19	22,62	35	0,00
Positive	11	40,74	65	77,38	76	
Total	27	100	84	100	111	

Table 5 shows that 76 mothers had good positive attitudes, 65 had children with good language skills (77%.38), and 11 had children with poor language skills (40.74%). 35 mothers had negative attitudes, with 19 children with good language skills (22.62%) and 16 children with poor language skills (59.26%).

The statistical test results of the Chi-square test showed a p-value = 0.00. With a

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95% confidence level ∝ = 0.05. From the critical value that has been determined previously, a conclusion can be drawn, where the p-value < α, then Ho is rejected, and Ha is accepted, meaning that there is a relationship between the mother's attitude and the prevention of speech delay in children aged 1-3 years in the Pantai Labu Deli Serdang Health Center Working Area.

4. DISCUSSIONS

The relationship between mother's knowledge regarding the prevention of speech delay in children aged 1-3 years

The research found that 60 mothers had good knowledge, 58 had children with good language skills (69.05%), and 2 had children with poor language skills (7.41%). Furthermore, 34 mothers had sufficient knowledge, with details of 26 children having good language skills (30.95%) and 2 children having poor language skills (7.41%). Then, 23 people lacked maternal knowledge, and 23 (85.18%) lacked language skills. According to Notoatmodjo (2016), one level of knowledge is knowing; knowing means remembering material that has been previously studied. What is included in this level of expertise is remembering something specific from all the material learned or stimuli that have been received; therefore, 'knowing' is a shallow level of knowledge. Verbs to measure whether people know what they are studying include: explain, describe, interpret and state (Stanny, 2016).

Understanding is defined as the ability to explain known objects and materials correctly. People who already understand the object or material must be able to explain, give examples, formulate, and predict the object being studied (Kivunja, & Kuyini, 2017). Children who experience delays in speech and language are likely to experience difficulties in learning; challenges in reading and writing will make it difficult to achieve academic achievement evenly, and this will last until the child is a young adult. Then, in adults, it will cause low academic achievement due to speech and language delays, and they will also experience problems related to attitudes and behaviour and psychosocial adjustment (Burke, 2018)

The respondent's knowledge can be known from the respondent's verbal or written expressions regarding certain questions, either verbally or in writing (Stanny, 2016). In this study, respondents were expected to be able to answer questions, with a total of 20 true-false questions. This question discusses the respondent's knowledge of preventing

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speech delay and the development of children's speech and language.

Good knowledge is something that mothers must have because it supports good attitudes regarding the development of their children's speech and language. Therefore, the mother is the child's first teacher in stimulating the child's language. With good knowledge, mothers can also find out if there is an abnormality or delay in speaking in their child so that it can be resolved quickly. The mother's education supports mothers with good knowledge by the theory put forward by Umek et al. (2008), which states that high maternal education influences knowledge, and maternal education can indirectly influence language development in children (Umek, 2008).

According to researchers' assumptions, knowledge is essential for the life of every human being. In this case, especially for mothers, the better understanding the mother has, the better the speech and language stimulation given to the child. Stimulation is essential in the growth and development of children because the better the stimulation provided, the better the child's development will be. Conversely, if the stimulation is not good, the child's development will also be less good. Speech and language are essential things in life because by speaking, we will be able to know and understand desires and surrounding circumstances.

The results of this research are in line with research conducted by Zamil (2018) entitled The Relationship between Mother's Knowledge and Speech and Language Stimulation in Children Aged 36-48 Months at Paud Cempaka Mas Medan 2018. Based on the results of the chi-square test between mother's knowledge of speech and language stimulation, a significant value of $p = 0.002 < 0.05$ was obtained, meaning that there was a relationship between maternal knowledge and speech and language stimulation in children aged 36-48 months at PAUD Cempaka Mas Medan in 2018 (Zamil, 2018).

The relationship between mothers' attitudes regarding prevention of speech delay in children aged 1-3 years

The research found that 76 mothers had good positive attitudes, 65 had children with good language skills (77%.38), and 11 had children with poor language skills (40.74%). Furthermore, 35 mothers had negative attitudes, with 19 children with good language skills (22.62%) and 16 children with poor language skills (59.26%). Attitude is behaviour in humans that regulates them in

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acting (behaving) and with specific feelings in response to particular objects and is formed based on knowledge and experiences during life. In this way, attitude is the driving force or reason for someone to act. According to Schafer (2019), attitudes consist of various levels: accepting, responding, appreciating and being responsible.

Attitude is a reaction or response of a person close to a stimulus/object that is internal or external so that its manifestation cannot be seen directly but must first be interpreted from this closed attitude. The environment that significantly influences a child's early language development is the family, especially the mother's attitudes and behaviour, which are indirectly influenced by her knowledge (Van Dessel, 2018). Research conducted by Hasanah et al (2019), entitled the correlation between Mother's Knowledge About Language Stimulation and Language Development OF Toddlers in Lengkong, Mumbulsari, Jember. The test results using the Chi-square test have a value of p = 0.000 (p < 0.05), meaning maternal attitudes and maternal behaviour have a relationship (Hasanah, 2019).

The golden age is the best period of development for children, one of which is the development of speech and language; where during this development period, children are very active in playing, demonstrating, acting, chattering, imitating sounds and combining words into sentences (Chapman, 2017). A child's communication inability, compared to the speaking ability of children his age, is a child's speech delay.

One of the causes of speech delays in children is that the use of gadgets in early childhood is widespread nowadays; where gadgets can cause children's psychomotor skills to become hampered, disrupt children's sensory motor speech, and reduce socialization and interaction, which causes children to be insensitive to their surroundings. Cognitive, psychological, emotional abilities, physical development, morals, social emotions, language development, communication only in one direction, and unable to assess, explain and not understand the meaning of the conversation (Brodin & Renblad, 2020).

Gadgets have a relationship and influence speech and language development. Children who play with gadgets for two hours per day have speech and language delays compared to children who play with gadgets for less than 2 hours a day and even more than 60 minutes can experience language delays. Children who play with gadgets cannot naturally communicate, thus making children not

respond to things around them, making children passive listeners, and disrupting children's growth and development; gadget radiation can also damage nerves and brain tissue, reduce active power, reduce eye health, disrupt sleep. and rest in children, it becomes difficult to concentrate, reduces concentration in learning, limits children's physical activity and causes weight imbalance because children often endure hunger and thirst when playing with gadgets (Fernandes & Lestari, 2019).

According to researchers, preventing speech disorders in children depends on the mother's attitude when communicating with children. A mother's good attitude in providing education or communication to children can prevent speech delays. By inviting the child to interact, the child will hear a lot of the vocabulary that the mother gives so that the child can imitate the vocabulary that the mother says.

Based on the discussion above, reducing gadgets for a long time and increasing communication between mother and child can prevent delays in speaking to children. Parents must play a more active role in inviting children to communicate and interact to stimulate children's speech and language development, especially in increasing their vocabulary.

5. CONCLUSIONS

The statistical test results of the Chi-square test showed a p-value = 0.00. With a 95% confidence level $\propto$ = 0.05. and the statistical test results of the Chi-square test showed a p-value = 0.00. With a 95% confidence level $\propto$ = 0.05. This means that there is a relationship between the aternal knowledge and mother's attitude and the prevention of speech delay in children aged 1-3 years in the Pantai Labu Health Center Working Area, Deli Serdang.

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AUTHOR CONTRIBUTIONS

Substantial contributions to conception, data collection, and analysis: Hidawati Lase, Herawati, Helpinta Barus, and Debi Novita Siregar. Writing and manuscript revisions: Hidawati Lase and Debi Novita Siregar.

CONFLICT OF INTEREST

The authors declared no potential conflicts of interest with respect to the

research, authorship, and/or publication of this article.

DATA AVAILABILITY STATEMENT

The data are not publicly available due to privacy or ethical restrictions.

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